

Stage 2 vapor recovery systems on gasoline dispensers have been required in Wisconsin for decades. In most cases, these systems are required in the counties considered non-attainment for ozone. However, the state hazardous air pollutant rule (chapter NR 445, Wisconsin Administrative Code) requires similar controls at the largest stations in other parts of the state. Wisconsin Department of Natural Resources (DNR) has implemented the federal nonattainment area requirements, as approved by US Environmental Protection Agency (EPA).

Stage 2 vapor recovery involves capturing and controlling gasoline vapors when a vehicle is being fueled at the pump. The system uses special dispensing nozzles that collect the vapors and pump them back into the storage tank below ground instead of releasing them into the air. Newer vehicles are equipped with their own vapor recovery systems, called "onboard refueling vapor recovery" or ORVR. Without vapor recovery systems in place, some toxic compounds (e.g., benzene) will be released into the air from gasoline vapors. Federal rules are changing, though, because of the increased use of ORVR in vehicles. The information provided below describes recent changes to these requirements. For updates on this information, visit our web site at <http://dnr.wi.gov/topic/CompAssist/sb/AirRegs.html#gas>.

### ***How are the Rules Changing?***

Each state is required by EPA to set up its own plan for implementing federal Clean Air Act requirements; this is called a State Implementation Plan or SIP. EPA sets national standards, requirements or guidelines that the state then incorporates into state statute or administrative code. Once a requirement is established through state law, the state submits that to EPA in a SIP. Each state's SIP goes through a federal approval process which can take a year or more, and makes those rules federally enforceable.

Wisconsin legislation was signed on April 2, 2012 that created a state statute allowing the Wisconsin DNR to begin the process of removing stage 2 vapor recovery requirements from the administrative code. Once the state rule requirements have been removed, Wisconsin will be ready to submit a SIP change to EPA for approval. Stations located in **Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Washington, and Waukesha counties** will be affected by this change in state rules.

EPA issued a ruling on May 16, 2012, that ORVR is in widespread use and that use of stage 2 vapor recover systems is no longer required for states to meet their SIP requirements. Now Wisconsin can move ahead with the necessary rule changes and submit a SIP change to EPA.

### ***What Can Gas Stations Do Now?***

Based on EPA and state rules, all gas stations now have the option of installing or retaining stage 2 vapor

recovery systems, if they were solely required for ozone nonattainment rules. Other rules may apply that require stage 2 for larger stations. Read the section below on "***Do Other Air Pollution Requirements Apply?***" for details.

While the state and federal rules may have changed, the SIP has not. Existing stations should maintain the equipment in proper and safe working order until such a time as all the regulations are changed; federal law, state rule, and Wisconsin SIP. There is some risk with removing the systems at this time because the existing SIP still has the strength of federal law until a new one is approved by EPA.

If you choose to remove the system, it is recommended that you follow these best practices:

- Operate and maintain tank filling vapor balance system (aka, Stage 1 Vapor Recovery) following best practices.
- Certify use of only fuel suppliers that employ vapor balance (aka, Stage 1 Vapor Recovery) in their fuel distribution network.
- Maintain use of "bottom filling" (e.g. - submerged fill) for all on-site fuel storage tanks used for gasoline as defined in NR 420 and the federal NESHAP, subpart CCCCCC.
- Monitor all fuel deliveries to ensure proper vapor return hose connection and proper resealing of all opened tank access points after completion of fuel delivery.
- As fuel nozzle technology evolves, utilize nozzles that eliminate or limit fugitive fuel loss (nozzle drips).

- Utilize low VOC permeation hoses.
- Maintain, or install and maintain, vent caps (e.g. - pressure vacuum valves on vent pipes) that are integral to most Stage 2 Vapor Recovery systems and which substantially enhance the control efficiency of vapor balance (aka, Stage 1 Vapor Recovery) systems.
- Follow procedures for proper closure of all vapor lines at the pump or at the Stage 2 control equipment such that a water-tight and VOC vapor-tight seal is maintained at all times, according to **PEI 300-09 (2009 Edition) Chapter 14.**
- Conduct formal maintenance and integrity and pressure testing of all critical vapor balance (aka, Stage 1 Vapor Recovery) system components including cleaning and tuning of the vent caps at regular intervals; preferably **every 6 months.**
- For larger stations, consider the use of In Station Diagnostic (ISD) technology which is standard in California systems to monitor Stage 1 system operation.

### ***Do Other Air Pollution Requirements Apply?***

Yes. Wisconsin's state hazardous air pollutant rule, ch. NR 445 of the Wisconsin Administrative Code, contains a requirement to control hazardous air pollutant (HAP) emissions that are above certain levels. For gas stations, the primary HAP of concern is benzene in gasoline.

**Diesel fuel is not included here.** This rule applies state wide.

In the state HAPs rule, stations with stage 1 vapor recovery installed are exempt from its requirements if throughput of gasoline is below 2 million gallons per year. Also, stations without stage 1 vapor recovery are exempt if throughput is below 1.25 million gallons per year. (Stage 1 requirements continue to apply to new stations, under NR 420.04(3), Wis. Admin. Code.)

To document that your station is meeting these exemptions, simply keep monthly records to show that your throughput of gasoline, for each 12 month period, stays below the levels. In the event the facility exceeds the exemption level in one year, then controls may be needed or you may need to provide more complete records of benzene emissions.

However, before adding controls to meet the state rule, you may be able to demonstrate that your benzene emissions do not exceed levels of concern. Based on current information on benzene content in gasoline and the DNR's calculations, stations with potential gasoline throughput below 4.7 million gallons per year are expected to have benzene emissions that are below levels of concern and do not trigger the need for any additional controls to meet the rule requirements.

### **Certification for stations that are not exempt**

Stations that are not exempt (over 2 million gallons per year) but have actual gasoline throughput at or below 4.7 million gallons per year may certify that they will never exceed that level and can assure that their benzene emissions meet the NR 445 requirements. To demonstrate that your station stays below the level, keep records of gasoline throughput on a monthly basis and for each 12 month period the total should be calculated and recorded and a regular Stage 1 vapor balance maintenance & inspection plan should be standard operating practice.

For stations nearing that threshold, those who have actual throughput of **2 millions gallons per year** or more, a letter certifying that the gas station will stay below 4.7 million gallons per year should be sent to:

Jeff Myers  
Attn: Gas Station NR 445 Certification  
WDNR – Air Management (AM/7)  
PO Box 7921  
Madison, WI 53707-7921

If a station chooses not to submit the certification, the facility may need to install controls that meet the definition of Lowest Achievable Emissions Reduction. Contact Jeff Myers at (608) 266-2879, or [jeff.myers@wisconsin.gov](mailto:jeff.myers@wisconsin.gov) to discuss the certification options for your station.

For information and updates on the DNR's regulations related to gas stations and stage 2 vapor recovery, visit our web site at <http://dnr.wi.gov/topic/CompAssist/sb/AirRegs.html#gas>. Look for the bullet "Stage 2 Vapor Recovery – State and Federal Regulations."



### ***Contacts for More Information or Assistance***

The Small Business Clean Air Assistance Program helps smaller businesses understand and comply with the Clean Air Act regulations. To contact the program staff, call 1-855-889-3021 (toll free) or email [DNRCleanAir@wisconsin.gov](mailto:DNRCleanAir@wisconsin.gov).



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